

ABSTRACT

When recording or reading an optical disc having plural data recording layers, which data recording layer the light spot is focused on is detected to improve playback signal quality and signals written to the layer on which the light spot is focused are read more reliably. A convergent lens converges the laser beam on the optical disc, and a focus controller controls the focal point of the laser beam on the data layer. A tracking controller positions and tracks the focal point of the laser beam converged by the convergent lens on a track of the optical disc. A photodetector detects the reflected laser beam from the disc. A convergence detector then detects the convergence state of the laser beam emitted to the plural data recording layers. Based on output from the convergence detector, the laser driver is controlled to separately set beam power appropriately for each of the plural data layers of the disc during playback.